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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/766,558	01/19/2001	Quaecd Motiwala	PA000103	1085
23696	7590	05/17/2006	EXAMINER	
QUALCOMM, INC 5775 MOREHOUSE DR. SAN DIEGO, CA 92121			WANG, TED M	
			ART UNIT	PAPER NUMBER
			2611	

DATE MAILED: 05/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/766,558

Applicant(s)

MOTIWALA ET AL.

Examiner

Ted M. Wang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-7, 9-18, 20, 21, 25, 28, 30-32, 36 and 40-42 is/are rejected.
- 7) ☒ Claim(s) 4, 8, 19, 22-24, 26, 27, 29, 33-35, 37-39 and 43 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. In view of the appeal brief filed on 11/21/05, PROSECUTION IS HEREBY REOPENED. New grounds rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
- (2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 5-7, 9-18, 20, 21, 25, 28, 30-32, 36 and 40-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Komatsu (US 5,818,882).

- With regard claims 1 and 5, Komatsu discloses a communication system, a method for processing a frame of data, comprising:

partitioning said frame of data into at least a first and second (plurality) portions of data symbols (column 4 lines 23-39);

assigning a first channel element to demodulate data symbols of said first portion of data symbols (Fig.3 elements A-N, column 5 line 39 – column 6 line 15 and column 7 lines 9-40); and

assigning a second (plurality) channel element to demodulate data symbols of said second portion of data symbols (Fig.3 elements A-N, column 5 line 39 – column 6 line 15, and column 7 lines 9-40).

- With regard claims 2 and 6, Komatsu further discloses demodulating said first and second (plurality) portions of data symbols by said first and second (plurality) channel elements, respectively (Fig.2 and 3 elements A-N, column 2 lines 1-20, column 5 line 39 – column 6 line 15, and column 7 lines 9-40). In column 2, lines 1-20 Komatsu teaches that each of the receiving demodulating processing sections A to N, a base band signal is provided to correlation circuits 104a, 104b, . . . , and 104n through a frequency offset correction circuit 103. The correlation circuits 104a, 104b, . . . , and 104n perform reverse despreading with the despreading symbols which are shifted from each other with respect to time. It is inherent that the receiving demodulating processing sections A to N demodulate different portions of data symbols, respectively.
- With regard claims 3 and 7, Komatsu further discloses receiving said frame of data via a radio frequency receiver front end (Fig.3 elements 1 and 2); correlating with at least a data symbol in said frame of data in accordance with timing of at

least one assigned finger (Fig.3 elements A-N, 4a –4n); and using a result of said correlating in said first and second (plurality) channel elements for said demodulating (Fig.3 elements A-N, 4a –4n, 5a-5n, and 6).

- With regard claim 9, Komatsu further discloses receiving information related to a data rate of data symbols of said frame of data (column 2 lines 39-55 and column 7 lines 1-8).
- With regard claim 10, Komatsu further discloses wherein the number of said plurality of portions of data symbols is based on a data rate of data symbols of said frame of data (column 2 lines 39-55 and column 7 lines 1-8).
- With regard claim 11, Komatsu further discloses wherein the number of said plurality of channel elements is based on a data rate of data symbols of said frame of data (column 2 lines 39-55 and column 7 lines 1-8).
- With regard claim 12, Komatsu further discloses partitioning each of said plurality of frames of data into a plurality of portions of data symbols (column 4 lines 23-39); and

assigning a plurality of channel elements (Fig.3 elements A-N) to each of said plurality of frames of data to demodulate data symbols of correspondingly said plurality of portions of data symbols of each of said plurality of frames of data (column 5 line 39 – column 6 line 15, and column 7 lines 9-40)..

- With regard claim 13, all limitation is contained in claims 12 and 9. The explanation of all the limitation is already addressed in the above paragraph.

- With regard claim 14, all limitation is contained in claims 12 and 10. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 15, all limitation is contained in claims 12 and 11. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 16, all limitation is contained in claims 12 and 6. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claims 17 and 18, all limitation is contained in claims 12 and 7. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 20, which is an apparatus claim related to claim 1, all limitation is contained in claim 1. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 21, which is an apparatus claim related to claim 3, all limitation is contained in claim 3. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 25, which is an apparatus claim related to claim 5, all limitation is contained in claim 5. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 28, which is an apparatus claim related to claim 7, all limitation is contained in claim 7. The explanation of all the limitation is already addressed in the above paragraph.

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- With regard claim 30, which is an apparatus mean plus function claim related to claim 1, all limitation is contained in claim 1. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 31, which is an apparatus mean plus function claim related to claim 2, all limitation is contained in claim 2. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 32, which is an apparatus mean plus function claim related to claim 3, all limitation is contained in claim 3. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 36, which is an apparatus mean plus function claim related to claim 12, all limitation is contained in claim 12. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 40, which is an apparatus mean plus function claim related to claim 16, all limitation is contained in claim 16. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 41, which is an apparatus mean plus function claim related to claim 17, all limitation is contained in claim 17. The explanation of all the limitation is already addressed in the above paragraph.
- With regard claim 42, which is an apparatus mean plus function claim related to claim 18, all limitation is contained in claim 18. The explanation of all the limitation is already addressed in the above paragraph.

Allowable Subject Matter

4. Claims 4, 8, 19, 22-24, 26, 27, 29, 33-35, 37-39 and 43 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten to overcome the objection(s) set forth in this Office action and rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ted M. Wang whose telephone number is 571-272-3053. The examiner can normally be reached on M-F, 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on 571-272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ted M Wang
Examiner
Art Unit 2634

Ted M. Wang


CHIEH M. FAN
SUPERVISORY PATENT EXAMINER